

THE
MEDICAL AND SURGICAL REPORTER.

No. 1182.]

PHILADELPHIA, OCTOBER 25, 1879. [VOL. XLI.—No. 17.

ORIGINAL DEPARTMENT.

LECTURE.

ON DISEASES OF WOMEN.
Delivered at the College of Physicians and Surgeons,
New York,

BY PROF. T. GAILLARD THOMAS, M.D.
REPORTED FOR THE MED. AND SURG. REPORTER.

The Study of Gynaecology at this Clinic.

GENTLEMEN:—It gives me great pleasure to welcome back those of you who have been accustomed to meet with us here, and to offer a hearty greeting to such as now come among us for the first time. I shall endeavor, in the first place, to set before you briefly, as is my usual custom on such occasions as this, the methods of study which I believe to be the most advantageous and which we are going to follow here. When I first commenced to give clinical lectures on diseases of women, I tried a plan which all young clinical teachers in this branch adopt for a time. I never knew one, however, who did not eventually give it up. The practice to which I refer is the attempted exhibition to the class of various uterine troubles by means of the speculum; and I do not hesitate to declare to you that under such circumstances it is a farce, an impossibility, and often a fraud.

Let me explain to you why this is so. Suppose, for instance, I should have a patient with laceration of the cervix uteri, which I should like to exhibit to you. At the distance of six inches from the speculum one might see very well, and at the distance of a foot, perhaps, get a moderately good view; but a person sitting as far away as even the first row of benches could see absolutely nothing of the condition existing. Unfortunately

you would see less than nothing; for you would get the most erroneous idea of the very part which I attempted to exhibit to you. If I were to bring my cases before a class of only five or six, of course, it would be a different matter; but in such a clinic as this the actual inspection of uterine disease (except in very rare cases) is manifestly impracticable. In the first place, if I were to allow you to come down individually into the amphitheatre, our time would be completely wasted; for in order to really see anything it would be necessary for each of you to occupy two or three minutes. Otherwise, you might be altogether misled in regard to the cases.

I therefore gave the plan up, as I said, not in order to save trouble, as one might perhaps suppose, but because I found that it was really of no service whatever.

Another point upon which I lay great stress (and this is one upon which you will hear me insist over and over again) is this, that the speculum is in reality the least valuable of all the means at our disposal for diagnosis in gynaecological practice. You must learn to see through the ends of your fingers, and in nine cases out of ten you will get more information by means of a cultivated touch than could be elicited through the agency of any speculum whatever. Place your reliance, therefore, on your fingers, and not on the speculum. The latter is principally useful as a means by which therapeutical applications may be made to the uterus and vagina.

Allow me to say again, that I hope you will all be regular in attendance here, as I shall endeavor to make my clinical lectures supplementary to my didactic ones, and thus have the clinics from week to week form a continuous chain. My

aim will be, not to bring before you the most rare and striking forms of disease, or to perform the most brilliant operations in your presence, but to show you just such cases as you will all be liable to meet in your ordinary practice.

It not infrequently happens that country practitioners come to spend a winter in New York, at great sacrifice, to learn just such practical points as I shall endeavor to impress upon you, because they have found, after a considerable experience, it may be, that the diseases peculiar to women perplex them more than any others which they are called upon to treat. I should, therefore, feel greatly dissatisfied with myself if any such (should they be attending the present course) should go away without learning anything here.

I propose to make my teaching entirely elementary, for a long experience has shown me conclusively that it is in the elementary points of gynaecology that a great many physicians, otherwise well posted on their profession, are sadly deficient. The reason that they frequently do not discover disease when it is really present is that they do not look for it properly. Such a one would perhaps say that he had made an examination, in any given case, by means of the speculum, and yet had not been able to find out what the trouble was. But, as I have previously mentioned, the speculum is the least efficient of all the means of diagnosis at our disposal, and it is unquestionably our duty to employ *all* the means which it is possible for us to resort to.

In every instance I shall proceed first to get the rational history of the case from the patient herself, and in doing this I shall always make use of the same general method of interrogating her. Then, having obtained the history, I will resort to a physical exploration, and in making this I shall employ all the means that it is possible to resort to. If you will look at a good examiner of the chest while engaged in making out a diagnosis, you will observe that he does not simply apply his ear to the chest wall, but that he first makes an inspection of the thorax, then measures the two sides of it carefully, and then practices palpation; after which he resorts to percussion and auscultation. By the combination of all these different methods he is enabled to arrive at a conclusion in regard to the case.

So, in diseases of women, we must never jump at a diagnosis. For example, here is our first case now before you. I shall get the history of the patient, and then tell you what I suspect is probably the trouble, from the symptoms described; after which I will make a physical examination and determine the diagnosis positively.

What is a diagnosis? Merely the logical deduction from certain premises. What, then, are these premises? The symptoms. And what is the deduction to be drawn from them? The diagnosis.

Some years ago I used to offer prizes for the best report of my clinic during the regular winter course, and I wish I could offer one this year; for I should like to encourage you, by any means in my power, to take notes here. I do not advise you to do so in attending didactic lectures, because all the material given in them is to be found in books; but notes taken at the clinics you will find to be of the highest service. When you get into actual practice cases will come into your hands in regard to which you will be able to learn nothing whatever from the ordinary textbooks; but by referring to your notes you may perhaps find precisely similar ones which have occurred here. But now let us turn to our patient.

Case 1.—Laceration of the Cervix Uteri; Subinvolution; Fungoid Degeneration of the Liming Membrane of the Uterus.

This patient's name is Margaret O'C.; she is a native of Ireland, thirty-eight years of age; has been married eighteen years, and has had six children, but no miscarriages. Her youngest child is six years old. Now, let us suppose that this woman comes to consult you at your office. There is something wrong about her, and it is your business, as her physician, to find out what the nature of the trouble from which she is suffering may be. If you will now pay close attention to the way in which I question the patient, you will see the method which I almost invariably resort to for obtaining the rational history in any case, and one which I cannot recommend too highly to you to follow out in your own practice. How long have you been sick? "About two years." Were you perfectly well up to two years ago? "I have not been perfectly well since the birth of my last child, but I have been worse for the last two years." What has annoyed you during that time? "Headache and a dizziness when I go out." Do you ever feel so dizzy that you stagger? "Sometimes." (The symptoms of which she complains, you will understand, gentlemen, is what we call vertigo.) What else do you suffer from? "Hemorrhage from the womb every month." Do you have to go to bed in consequence of this? "Yes." How long does the flow last? "Three days and three nights." Do you ever faint from weakness caused by it? "No; but I feel like it sometimes." What else do you suffer from?

Oct. 25, 1879.]

Lecture.

355

"Pain in the side." Anything else? "The soles of my feet burn, so that I cannot sleep at night."

You observe that I have suggested nothing whatever to the patient; yet she has given me quite enough information to make me suspect some uterine or pelvic trouble, all the symptoms mentioned pointing in that direction. The particular nature of the affection, of course, we do not know as yet, and I now proceed to put a few direct questions. Do you have the whites at all? "Yes, a great deal." Constantly? "Yes; and the discharge has a very bad smell." (This is a point she forgot to mention before.) Have you any headache? "I have some headache, but it is not as bad now as it used to be." Do you have any trouble with your bladder? "I have to pass my water very often."

These are all the points which it is necessary to obtain in regard to the history, and if the patient were in your office, or you were visiting at her own home, you would now proceed to make a physical examination. Let me here remind you that whenever you deem such an examination necessary you should make up your mind to do it *thoroughly*, or else not attempt it at all; for there is no use putting your patient to the annoyance of such a procedure unless you mean to find out in this way all that you possibly can about the case. When you have determined that it really is necessary, appeal to the good sense of the patient, and get her full consent to the exploration. Otherwise it will be utterly impossible for you to conduct it satisfactorily. The examination is then to be carried on as follows:—

Instead of placing your patient on a bed or sofa (or any soft surface), let her lie, on her back, upon a table, on which a blanket and sheet have been spread, with her head resting on a pillow and her knees flexed. A table never gives alarm to a patient, and the fact of your employing one is very apt to inspire her with confidence in you. A sheet is then thrown over the woman, and you are ready to commence your exploration. There is nothing that answers the purpose of a lubricating agent for the fingers so well as soap and warm water. This is far preferable to oil or lard, as grease of any kind impairs the tactile power. Then it may very likely be rancid and offensive, and if this is the case, it will act as an irritant to the vagina.

The first part of the examination is really the most important. When I passed my finger into the vagina, in the present case (the examinations, as I have intimated, are always conducted in

private here) I found that instead of meeting with a normal cervix uteri, it passed into a wide rent; so that no *os externum* could be felt at all. Then I said to myself, the diagnosis is laceration of the cervix. Let us see if such a condition will account for the symptoms. The prominent ones are vertigo, profuse hemorrhage, fetid leucorrhœa, headache and backache; and it is possible that they might all be due to such a laceration. The patient is suffering from marked anaemia (on which the headache and vertigo may depend), and this may be the result of continuous or periodical bleeding of the torn surface. It would explain the leucorrhœa satisfactorily, and the headache might be the result of reflex irritation from the injured part.

But the examination has as yet only been commenced, and before deciding that we have arrived at a satisfactory diagnosis, it is better that it should be completed. On resorting to conjoined manipulation, by keeping the index finger of one hand at the cervix uteri and carrying the other up to the abdominal walls (so that the uterus might be brought between the two hands), I ascertained that the organ was considerably enlarged. I was unable to find either ovary; nor could I detect anything abnormal about the pelvis.

The next step is to make use of the speculum. I trust none of you understood me to say before that the speculum should not be employed; what I wanted to impress upon you was merely that it should not be relied upon by itself. In order that a satisfactory examination may be made by means of the instrument, the patient should lie upon the left side, with the left arm drawn behind her and the right leg flexed and carried across the left. Sims' speculum is then introduced and held firmly in position by an assistant. When this had been done in the present instance the marked laceration of the cervix was ocularly demonstrated. Having wiped off some tenacious mucus, with a rod wrapped with cotton, I found the surface of a light red color, but absolutely free from any bloody oozing. I then drew the point of a uterine probe over it several times, with some little force; but there was still not the slightest evidence of hemorrhage from it. What, then, I had previously thought might be the diagnosis, was thus, you see, found incorrect, or, at all events, incomplete; because the source of the bleeding was still unaccounted for, and loss of blood is the principal thing for which the patient comes here to seek relief.

I next passed the sound into the cavity of the uterus, and this was followed by quite a little gush

of blood. Now when, in any case, I get a history of menorrhagia or metrorrhagia, and on making an examination find that the uterus is considerably enlarged and that the introduction of the sound is followed by such a sudden gush of blood as was the case here, I have learned, after a very extended experience, to infer that there is almost invariably a certain condition present, which I will shortly explain.

When I found the state of affairs mentioned, I at once took this little curette, which consists of nothing but a loop of flexible copper wire, and introduced it to the fundus. On withdrawing it, nothing came with it; but now, when I carried it up into one horn of the organ, I drew out three little masses, which I now exhibit to you on this paper. At first sight they look very much like blood-clots; but it can readily be seen, on close examination, that they are not of this nature. They are rather polypoid in character; but still are not strictly polypi. The presence of these little growths in the uterus not infrequently causes such free hemorrhage as to give rise to the most serious consequences, and sometimes to endanger life itself. I know of a case where a lady was losing so much blood from the uterus that her physician, without knowing exactly what caused the hemorrhage, was obliged to resort to tampons saturated with persulphate of iron. A month afterward she applied to another practitioner, who, in order to find out what was the state of the interior of the uterus, very properly introduced a sponge-tent. Unfortunately, however, the patient died; and at the autopsy it was ascertained that the hemorrhage had all been due to the presence of these growths in the uterus, somewhat larger, it is true, than those which I now show you, but of exactly the same character. These masses, under the microscope, are found to be nothing but hyperplastic endometrium.

When the patient was delivered, six years ago, the cervix was completely torn through, and it has been ascertained that whenever this is the case in a labor, involution of the uterus does not go on as it ought to. Since then the organ has been constantly congested, and this condition has given rise, first, to the leucorrhœa complained of, and later, to the fungoid degeneration of the uterine mucous membrane, which has caused the bleeding. When I listen now to the heart, I find that there is an immense bruit with the first sound, constituting what is known as a bellows-like murmur, and due, no doubt, to the watery condition of the blood. All this has followed the woman's last confinement.

The complete diagnosis is, then—

First. Laceration of the cervix uteri.

Second. Subinvolution of the uterus.

Third. Fungoid growths lining the endometrium.

If this woman were a patient of mine, in the Woman's Hospital, I should be perfectly willing to tell her that she could be discharged entirely cured in three months' time, should no unforeseen accident occur in connection with the case. It is usually much easier, however, to promise than to effect a complete cure. I know the question will now arise in your minds, cannot such a patient as this be treated at her own home, in the country, for instance? I would reply, undoubtedly she can; and this is what I would advise to be done in any similar case.

In the first place, keep the patient in bed, and see that all fecal accumulation is thoroughly removed. A constant cathartic action should be maintained, but it should by no means be violent. In addition, free vaginal injections of warm water should be frequently resorted to, and the patient should be kept upon moderate diet, principally of a fluid character. When this regimen has been kept up for a week or ten days, a speculum should be introduced, and the medical attendant, having secured the cervix with a tenaculum, should pass a curette into the uterus, and carefully scrape out the whole cavity. Only yesterday I employed this little instrument in the case of a lady from Orange, who had been losing so much blood that on two occasions her physicians thought she was going to die from the effects of the hemorrhage. She had been flooding terribly for no less than ten years, notwithstanding the fact that fuming nitric acid and other powerful agents had been applied to the endometrium. In her case I actually removed an even teaspoonful of these fungoid granulations, by means of the curette.

Any one of you can perform this simple operation as well as I, and with the instrument I recommend and use myself, it is impossible, I believe, to do any harm. All such growths can be removed with the exertion of but very little force indeed, and although for a long time I have been in the habit of applying the curette to the uterine mucous membrane at least once a week, I have never known the slightest accident result from its use. By this means, then, we remove the principal symptom in the case, viz.: the menorrhagia. In consequence of this, her general health would become greatly improved, the irregularity of the heart's action would cease, and the derangements of the nervous system (to which such symptoms as the

burning in the soles of the feet are "due"), would be corrected. The leucorrhœal discharge would also become greatly diminished; although this is, no doubt, due in part to the laceration of the cervix.

In about ten days after the application of the curette, it would be proper to perform an operation for the relief of the latter condition. This is a very simple matter. If you wanted two fingers, for instance, to become agglutinated, you would pare a surface of equal area on the side of each, and then keep the denuded surfaces in apposition by some mechanical contrivance until they had become firmly united. This, I assure you, is all there is about the operation for laceration of the cervix. We have merely to pare the torn surfaces with the scissors or knife, and then retain them in apposition by means of silver wire sutures. A young operator may, perhaps, fail once or twice in securing union properly, but he will soon learn to do it as well as anybody.

Two great foci of irritation will have been thus removed (by the application of the curette and the sewing up of the lacerated cervix), and the uterus being, in consequence, rendered of less gravity and smaller in size, will be found to rise higher up in the pelvis; although in order to keep it up properly in position it may perhaps be necessary for the patient to wear an elastic ring pessary for a time. The uterus will no longer be large, heavy and congested, the leucorrhœa will probably cease altogether, and within three months the patient will be perfectly well. This, then, belongs undoubtedly to the class of curable cases.

Case 3.—Procidentia Uteri, with Ruptured Perineum, Cystocele and Rectocele.

In the next case I am going to exhibit the trouble to you for the reason that there is something here which can be readily seen by the class. This poor woman, whose face I shall allow to remain covered with the sheet, is suffering, as you perceive, from what is known as falling of the womb. What you see at the lower portion of the mass extruded from the vulva is the lacerated cervix with its everted edges, and you will observe that in part the bladder is dragged down with the uterus, while there is a rectocele behind. With this state of affairs existing, it is not difficult to imagine how much the patient must suffer from pain in the back, a sense of dragging and weight in the pelvis, irritation of the bladder and rectum, and other troubles incident to such a condition.

In this instance the sound passed just five

inches into the uterus; which must, therefore, be twice the normal size of the organ. This, then, is a case of complete prolapsus uteri, or, as it is sometimes called, procidentia uteri; although I must confess that I see no use in thus multiplying terms. This state of affairs resulted entirely from labor. The cervix became lacerated, and the edges of the wound never becoming united, involution did not take place, and the uterus consequently remained large and heavy; so that it sank gradually lower and lower in the pelvis, as its normal supports gave way, one after another. You see that I can very easily restore the uterus to its proper position; and if the patient had been placed in the knee-chest position, it would have replaced itself. The woman's nervous system is much exhausted, and it is quite time that something should be done for her relief. The first thing that ought to be attempted here is the sewing up of the lacerated cervix, and I hope I shall have the opportunity of doing this before you one week from to-day. This is a peculiarly good case for class demonstration, as the operation can be performed outside of the body, and need not be done through a speculum, as is ordinarily the case. At a later period I propose to operate for the procidentia.

The patient's name is Margaret H., twenty-eight years of age. She was born in Ireland, has been married five years, and has had one child, but no miscarriages. The child was born two and a half years ago.

Case 3.—Complete Rupture of the Perineum—Pelvic Abscess.

Mrs. Ellen R., born in Ireland, thirty-three years old; been married thirteen years, and had four children; no miscarriages.

How long have you been sick, Mrs. R.? "Since the birth of my last child, six months ago." How have you been complaining? "I have had a great deal of pain in the bowels." Where have you felt the pain particularly? "In the back and side. It is so bad that I cannot sleep at night." Do you ever have a passage from your bowels or pass your water without being able to control it? "No." Do you have to go to the water-closet frequently? "All the time; so that I have to take a great deal of paregoric."

I have received a letter from this patient's physician, and he says that she is continually passing laudable pus. Her pelvis is considerably contracted, and she was only delivered after a very difficult labor, during the course of which the whole perineum and two inches of the rectum were torn through. In consequence of this,

there is a loss of power of all the muscles in the vicinity of the anus, and yet, strange to say, she still retains control of the sphincter; although she is obliged to evacuate the contents of the rectum at frequent intervals. This is a most unusual exception to the general rule in these cases of extensive laceration; for ordinarily the fecal matter is escaping all the time, and the woman's life becomes perfectly miserable. The condition of such a patient is worse than that of one suffering from vesico-vaginal fistula, because the odor of feces is more intolerable than that of urine. Yet, as I have said, this is not the case here, and the woman would not be much annoyed were it not for the discharge of pus from the rectum.

Now let us inquire into the source of the latter. Just above the superior strait of the pelvis, on the left side, there is a large tumor, which lies in close contact with the descending colon. This is undoubtedly a phlegmon, and from this has resulted an abscess, which is still discharging pus into the intestine. For the origin of this we are to look to the labor mentioned, which must have given rise to a localized peritonitis.

The next question that comes up is, what can we do for this patient? In a surgical point of view there is nothing to be done at present. The laceration of the perineum is doing no injury, and need not be interfered with. As to the pelvic abscess (which is a mass composed of lymph surrounding a cavity filled with pus), if it were operated on, fatal peritonitis might easily be set up. But you say, can we do nothing for this abscess? I fear not just now. If we were to enlarge the opening into the intestine, which is presumably quite minute, fecal matter would probably flow through it, and we should have the cavity filled with this, which would be a much more serious matter than to have it filled with pus, as at present. On the other hand, it would also be extremely hazardous to attempt to evacuate the abscess externally, as things are now situated. After building up the strength of the patient, by appropriate supporting measures, however, we might apply an escharotic externally (which might be repeated from time to time), for the purpose of causing an adhesion between the abscess and the external parieties. When this had taken place, there would no longer be any danger in freely opening the abscess.

—Diphtheria has been malignant in Somerset county, Pa., this year. Many families have lost most of their children by it, and others have moved away, to escape the epidemic.

COMMUNICATIONS.

ARTIFICIAL FOODS FOR INFANTS.

BY VIRGIL O. HARDIN, M.D.,

Physician to the Rhode Island Hospital, Providence,
Rhode Island.

(Extracted from a paper read before the Rhode Island
State Medical Society.

* * * * Condensed milk is sometimes used in the artificial feeding of infants. It is sold in hermetically sealed cans, and when recently opened and diluted with water presents some of the properties of fresh cow's milk. It consists of cow's milk reduced to one-fourth its original volume and sweetened with cane sugar. It is open, however, to the same objections as milk taken from a herd of strange cows indiscriminately, inasmuch as we know nothing whatever of the source whence it is derived, or from how many different animals it is obtained. It is not at all probable that the care is taken in regard to the quality of the milk used for this purpose that should be exercised in the selection of fresh milk for the food of the infant. Moreover, the addition of cane sugar in the preparation of it is a serious objection to its use, for reasons already stated. But aside from these theoretical considerations, F. H. Daly* has shown that infants do not thrive upon it as they do upon fresh milk. They may grow fat and appear healthy, but they are more liable to diarrhoea and other derangements of the alimentary canal, and sink rapidly when so affected. They will take it readily, on account of its agreeable taste, but it does not seem to furnish the necessary material for preserving the natural vigor and vitality of the child. For this reason the question may very properly be asked, why should it ever be used when fresh milk can be obtained? The answer will probably be made that it is difficult to obtain pure milk from a single cow in our large cities. But in using condensed milk we are entirely ignorant of the source whence it is derived, and it is safer to trust to the honesty of the milkman than to unknown manufacturers, located, perhaps, in a foreign country. It is only when the child is placed in such circumstances that it is impossible to obtain fresh milk, that condensed milk will offer any advantages that should lead to its use. On voyages at sea or journeys on the land it is frequently useful in this way. But to substitute it for fresh milk when the latter is equally obtainable, is an act of which the absurdity is apparent at a moment's thought. The composition of the "Anglo-Swiss" brand

* *Lancet*, November 21 and 28, 1872.

of condensed milk is as follows, according to Pavy* :—

Casein.....	18.52	Ash.....	2.12
Fatty matter.....	10.80	Phosphoric acid	.649
Sugar of milk.....	16.50	Water.....	24.30
Cane sugar.....	27.11		

Taking the amount of casein as the basis of computation, it will be seen that this preparation must be increased by three times its volume of water, to reduce it to the strength of cow's milk. But the proportion of fat is very much less, and of sugar very much greater than in the latter. There exists, therefore, a marked deviation from the normal standard, and less approximation to the natural food of the child than in giving milk fresh from the dairy. Consequently, this method presents no advantages which should lead to its adoption, except when fresh milk cannot be obtained. But under such circumstances it may be used, and is probably better than any artificial substitute that could be devised. It contains the nutritious principles of milk in the natural form, although not in the natural proportions. It would be better, however, if sugar of milk were used in its preparation, instead of cane sugar.

A second class of alimentary substances which have been used in the artificial feeding of infants comprises various mixtures, so prepared as to contain the same proximate principles in the same proportions as are found in milk. The idea originated with Liebig, who wrote a book[†] advocating the use of his "food for infants," which was prepared upon the principle just stated. All subsequent preparations of this class are but imitations of his, and do not differ materially from it. We may, therefore, take Liebig's food as the type of this class. The method of preparing it is as follows: Take half an ounce of wheat flour, half an ounce of malt flour, and seven and a quarter grains of the crystallized bicarbonate of potash, and after well mixing them, add one ounce of water, and lastly, five ounces of cow's milk. Warm the mixture, continually stirring over a very slow fire, until it becomes thick. Then remove the vessel from the fire, stir again for five minutes, put it back on the fire, and finally let it boil well. It is necessary that the food should form a thin and sweet liquid previous to its final boiling. Before using, it requires to be strained through a muslin or fine hair sieve, to separate fragments of husk that may be present. The bicarbonate of potash is added, to neutralize the acid reaction of the two kinds

of flour, and also to raise the amount of alkali in the food to the equivalent of that in human milk. The ferment contained in the malt leads, during the exposure to the warmth employed in the process of preparation, to the conversion of the starch of both the flours into dextrine and sugar, the latter of which gives the sweet taste that is acquired. The solubility of the newly formed products accounts for the mixture becoming thin, and it is a point contended for by Liebig, that principles in this state tax the digestive and assimilative powers of the infant much less than starch. This food has been extensively used in Germany, and has had numerous advocates in this country. But the claims advanced in its favor are far beyond its real merits. If we examine its composition we shall find that out of seven parts of the mixture, five consist of cow's milk alone and one of water. The remaining seventh is composed of wheat flour and malt flour made from barley, both of which consist almost exclusively of starch. During the heating of the mixture, the ferment contained in the malt produces a chemical change in the starch, whereby the latter is converted into dextrine and glucose, or grape sugar. Speaking of dextrine, Pavy* says, "Being readily convertible, in the same manner as starch, by some of the digestive secretions, into sugar, it is probable that when it happens to be consumed it is transformed into sugar and in that state absorbed." So that the wheat flour and the malt flour are merely the equivalents of so much sugar added to the mixture. The bicarbonate of potash has no value as a nutritive substance, as it passes out of the body unchanged and does not contribute to its formation or preservation. To sum up these, we have in the mixture five parts of milk, one part of water, and the equivalent of one part of sugar. In what respect does this differ from the diluted and sweetened cow's milk that has always been used in the artificial feeding of children? It is only a clumsy and roundabout way of arriving at a result which may be directly reached by the simplest of methods. It presents no advantage, either in point of digestibility or of nutritive value. On the contrary, it clogs the stomach with a foreign substance, dextrine, and throws upon the alimentary canal the additional labor of converting this substance into sugar before it can be absorbed. The use of it compels the system of the child to manufacture out of the raw material the food which nature with a more generous hand furnishes ready made.

A third class of alimentary substances used as

* Op. cit., p. 106.

* "Food and Digestion" page 178.

† "Food for Infants:" London, 1867.

food for infants consists of starchy and farinaceous preparations, in almost an infinite variety of forms. In this class must first be placed the various kinds of flour made from the cereal grains. Why these should be recommended by writers upon the hygiene of infancy it is difficult to conceive, since they possess not a single property in common with the food which nature provides. They all consist largely of starch, a substance which does not exist in milk, and which the stomach of the infant is not capable of easily digesting. The nitrogenized elements are in the form which is least susceptible to the action of the digestive fluids, while the proportion of fatty matter is so small as to practically amount to nothing. The following table, from Letheby,* will sustain these statements:—

	Nitrogenous Matter.	Carbo-hydrates.	Fatty Matter.	Mineral Matter.	Water.	Carbonaceous to one Nitrogenous.
Wheat Flour...	10.8	70.5	2.0	1.7	15.0	7.0
Barley Meal.....	6.3	74.8	2.4	2.0	15.0	12.8
Oat Meal.....	12.6	63.8	5.6	3.0	15.0	6.2
Rye Meal.....	8.0	73.2	2.0	1.8	15.0	9.8
Indian Meal....	11.1	65.1	8.1	1.7	14.0	7.7
Rice	6.3	79.5	0.7	0.5	18.0	12.9

To this class also belong the various proprietary preparations, called "infants' food," with which the market is flooded, and which are usually sold under some high sounding name, which is as meaningless as it is fanciful. Pepper-sinated nutrient, papoma, Ridges' food, semolina, maizena, and a host of others, are samples of this class. Wonderful virtues are claimed for all of them, but a most superficial inspection will show that they are simply farinaceous preparations made from the cereal grains. Hassall[†] analyzed fourteen such preparations, purchased by him in the London market, and found that ten of them consisted of wheat flour, two of gluten mixed with a little starch, one of bean flour and arrow root, and one of rice flour. Their nutritive value may be readily judged of from their composition. A third variety of food of this class consists of preparations composed wholly of starch, such as tapioca, arrow root, sago, cassava, taccia and salep. These substances possess no nutritive value beyond that belonging to starch. They contain no nitro-

* Op. cit., page 5.

† "Food and its Adulterations," page 237.

genized matter, no fat, no sugar, no salts. They are even further removed from milk in their composition than are the cereal preparations. And yet they are extensively used as a desirable food for the infant, and are even recommended by eminent writers upon the treatment of diseases of children.

In order to fully appreciate the exact nutritive value of the substances of this class, it is necessary to understand the position held by starch as an article of diet. Starch is a principle which, so long as it retains its own form, is incapable of undergoing absorption into the circulation. By the processes of digestion it is first converted into dextrine, which has only a very brief existence, and is immediately converted into sugar, in which form it admits of ready absorption. There are three digestive fluids which are capable of converting starch into sugar, namely, saliva, pancreatic juice and the intestinal fluid. As saliva does not exist in the infant, according to Pavly,* previous to the eighth month, it may be left out of the question entirely. In order that starch may be converted into sugar by the action of the pancreatic and intestinal fluids, it is requisite that it should first be disintegrated and broken up, and a prolonged contact with those fluids is necessary in order to accomplish this result. Even under the most favorable circumstances, the whole amount of starch ingested is never converted into sugar, but portions of it are always to be found in the feces. It is absorbed under the form of sugar, and enters the general circulation only after undergoing a metamorphosis, the nature of which is not fully understood. Its function has been clearly shown by Pavly† to be the same as that of the other hydrocarbons, namely, the production of force and heat. There are several reasons why starch is inferior to fat and sugar as an ingredient of infant's diet. In the first place, it cannot be reduced to the liquid form. The absence of teeth to accomplish mastication, and of saliva to facilitate deglutition, shows conclusively the design of nature that the food of the child should be in the liquid form during the first few months of its existence. Starch may, however, be suspended in various liquids, and the child will not refuse to swallow it, and if no other objections to its use existed, this alone would not be an insuperable one. In the second place, upon reaching the stomach it is not acted upon by the gastric juice, but retains its solid form until it passes on into the small intestine. All the constituents of

* Op. cit., page 476.

† Op. cit., page 107.

milk are reduced to the liquid form in the stomach. Even casein, which is at first coagulated by the gastric juice, is soon redissolved into albuminose. The albuminose envelopes of the fat globules are dissolved and the fat set free, and thus the contents of the stomach take the form of a bland liquid. But if starch be present, it is not to be dissolved, but goes scraping its way over the delicate and sensitive mucous membrane of the pylorus and duodenum, producing spasmodic contractions of the irritated circular muscular fibres and causing the child to cry with pain. Upon reaching the pancreatic and intestinal fluids, several hours are required for its disintegration and conversion into sugar, to fit it for absorption. Lethaby* says that "starch will pass a considerable distance along the alimentary canal without much change, and it is only toward the end of the small intestines that the starch granules undergo marked disintegration." But nature never intended that the food of the child should remain in the small intestine for so long a time. The instinct of the infant leads it to seek its food about once in two hours, and before the starchy contents of one meal are absorbed a fresh burden is thrown upon the digestive tract, and thus the undigested material accumulates, until the intestine is emptied by the occurrence of diarrhoea.

But even if starch were a desirable form in which to administer carbonaceous food to the infant, the proportion of this element contained in the farinaceous preparations of this class is far in excess of that required by the system of the child. In milk the proportion of carbonaceous to nitrogenous material is as three to one. In the cereal grains it varies from 6.2 in oat meal up to 12.8 in barley meal. This excess constitutes so much waste of alimentary material which the system is compelled to dispose of, and from which it derives no benefit. In infancy the vital processes are chiefly directed toward developing the various organs and increasing the amount of the various tissues of the body. Almost the only force to be produced is that which is employed in carrying on the various vital processes, such as circulation, respiration and alimentation. The increase of the child in weight during the first year of its life is very rapid, and to accomplish this increase an adequate proportion of nitrogenous food is required. But in the starchy substances named above the nitrogenous matter constitutes only about 12 per cent. of the material, while in milk it forms 30 per cent. The human system also requires a certain amount of

* *Op. cit.*, page 59.

fat as an ingredient of its food. Besides its principal function of producing heat and force, which it shares with the other hydrocarbons, it has a special function of its own. A certain part of it escapes oxidation and is appropriated as one of the anatomical elements of the body. It fills up interstices between other anatomical structures, and gives a regular and rounded form to the outer surface of the body. As a poor conductor of heat it contributes toward retaining the animal warmth. It also forms a store of force-producing material, to be drawn upon as circumstances may require. We accordingly find that in milk the fatty matter constitutes 22 per cent. of the solid material. But in the farinaceous foods, on the contrary, it constitutes only 2½ per cent. in wheat flour, rye meal and barley meal, 6 per cent. in oat meal, and 9½ percent. in Indian meal.

As a further proof, if any were needed, that these substances are not suitable food for the nourishment of the infant, may be cited the fact that experience has shown that they can never be used alone or mixed with water, but must always be combined with a large quantity of milk. Under such circumstances the milk forms the nutritive portion of the mixture, and the flour or meal is so much superfluous material. Hammond* has shown conclusively, by experiments upon himself, that an exclusive diet of starch will not support life. Let a child be fed upon any of the starchy preparations alone, and he would die of starvation, as did the rats upon which Savory† tried this experiment. From whatever point we approach the subject, we are led to the one inevitable conclusion, that no preparation composed wholly or principally of starch is a suitable food to be used in the artificial feeding of infants.

* *Physiological Memoirs*, p. 112, et seq.

† *Lancet*, April 4th and 11th, 1863.

STRANGULATED HERNIA, WITH FECAL FISTULA, TREATED BY A NEW AND SIMPLE ENTEROTOME AND AN ANAPLASTIC OPERATION.

BY WILLIAM A. BYRD, M.D.,
Of Quincy, Ill.

October 9th, 1878, I was called to Seehorn, Ill., to see Mr. John Lyons, a farmer, aged 55, who was suffering with strangulated hernia.

Dr. J. H. Aleshire, his family physician, gave the following history of the case: October 5th, he was called to see the patient, for what the family supposed to be cramp colic, with vomiting,

which he found upon examination to be the result of a strangulation of an inguinal hernia of the left side. The hernia was congenital, but had never before given any serious trouble; neither had a truss been worn.

Taxis not relieving him the Doctor spoke of counsel, and perhaps the necessity of an operation, to which the patient objected. The Doctor gave anodynes and returned the next day, when the symptoms still persisting, taxis was again tried and again failed. The patient still objecting to an operation. This state of affairs continuing until the afternoon of the 8th, the Doctor determined to have counsel, whether the patient was willing or not, and sent for Dr. L. H. Baker, of Payson, a surgeon of ability and experience, who, upon arriving, which was about midnight, decided that the case was almost hopeless, and the operation for his relief would be of so critical a nature as to require all the light possible for its proper performance. The Doctors concluded to wait for morning, and sent for me to assist them.

I arrived at ten o'clock, and found the patient almost pulseless, semi-comatose, with cold clammy sweat and edematous crackling in the areolar tissue at the point of strangulation. The case looked hopeless; still I agreed with the other gentlemen in advocating an operation. Dr. Baker, himself an old and skillful operator, insisted upon my performing the operation, which I did.

When the sac was opened it contained extravasated feces, a mass of gangrenous omentum, and eight inches of gangrened intestine, that had separated for nearly half its diameter, both above and below. There were slight adhesions above the line of demarcation. The omentum was pulled down and ligated *en masse*, just above the mortified portion, which was cut off, and the long ends of the ligature were left hanging out of the wound.

The gangrenous portion of intestine was cut off at the lines of demarcation, and the healthy ends stitched into the opening in the abdomen, which was two inches and a half in length, the lower and inner end with three and the upper with two sutures.

As a portion of the contents of the bowel unavoidably entered the abdominal cavity, it was cleaned out as well as possible, and the two ends of the bowel were not stitched to each other, that an opening might be left for drainage and the withdrawal of the ligatures that were applied to the omentum. When the operation was ended his pulse and other symptoms were better.

Dr. Aleshire continued in charge of the case,

and washed out the wound and the cavity of the abdomen in its vicinity, night and morning, by injecting a solution consisting of a teaspoonful of table salt and a teaspoonful of carbolic acid to the gallon of water.

The patient made a rapid recovery, being put upon good diet, opium, cinchonidia and whisky, for after treatment.

December 26th, 1878, he came to this city to enter St. Mary's Hospital, for the purpose of having an operation performed for the closure of the fecal fistule. The discharges rendered him disagreeable to himself and loathsome to others.

At the time of the operation for the relief of the strangulation he was very thin of flesh, and had been suffering with malarial diseases for four years. When he came to the hospital he had entirely recovered his health and gained forty pounds in weight.

A crest-like septum existed between the openings, about a quarter of an inch thick. The mucous membrane prolapsed or rolled out, making the combined openings appear to be two and a half by four inches in size. Over this he wore compresses, to restrain the passage of fecal matter, and catch it when it did pass.

The upper opening passed inward, upward and backward, and the lower passed inward, parallel with the upper for about two inches, and then turned across the body to the *caput coli*.

I had read Dr. David Prince's article upon closure of artificial anus, in the October 1869 No. *American Journal of the Medical Sciences*, p. 412, *et seq.*, and liked his idea of very gradual pressure to procure adhesive inflammation and an opening through the septum between the intestines, better than anything I could find in the various works on surgery, including the exhaustive disquisition in the *Medical and Surgical History of the War*, part second, Surgical Volume.

Dr. Prince's instrument is unnecessarily complicated, and could be made much simpler and just as effective with a single piece of spring wire, as in Fig. 1.

His experience of the septum uniting behind the ligature as it cut through decided me to use an instrument that would take out a round or elliptical piece, as do the enterotomes of Delpach, Gross and Lotz, with the advantage of light elastic pressure, as in Dr. Prince's instrument. Such an instrument I succeeded in devising and constructing, with Dr. Aleshire's assistance, out of a

FIG. 1.

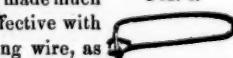


FIG. 2.



piece of steel wire, such as is used for bed springs. See Fig. 2.

This instrument we applied by passing a prong down each of the ends of the bowel, for an inch and a half, and permitting it to clasp the septum, December 26th, 1879, at 3 p.m. Fourth-grain doses of morphia were ordered every hour, to allay pain, if necessary.

The next morning the Sister in charge informed me that there had been so little pain that two powders subdued it.

29th, I slipped an elastic strap over the arms of the enterotome, so as to increase the pressure.

January 2d, the fenestrated rings had cut through, and he had a passage per rectum in the morning, the first since the 5th of October.

The bridge of tissue was destroyed by passing an elastic cord through the opening made by the enterotome and tying it tightly over a gallows erected upon a tin disk with a hole through the centre, as in Dr. Prince's operation, which took three days longer.

A flat piece of lead, one-fourth of an inch in thickness, and large enough to cover the opening, was adjusted as a pad to a spring truss. Owing to this pressure the opening rapidly decreased, until about one-half its former size, and most of the feces passed through the rectum.

January 31st, the opening ceasing to decrease in size, and the septum seeming to come nearer the surface, by contraction, and to stand up for three quarters of an inch between the ends of the bowel, offering a greater obstruction to the passage of the feces from above downward than it did immediately after it was first divided, I re-applied the enterotome to the projection. It cut through as before, and was removed, February 4th, when, with the assistance of Dr. Jacob A. Wagner, I applied the galvano-cautery to the outer edges of the opening, to induce contraction.

February 15th, there having been very little contraction, with the assistance of Dr. Wagner, I freshened the edges of the opening with a knife and united them with iron wire sutures. The next morning I found him suffering great pain, from the feces distending the bowel and exuding between the sutures. My friend, Dr. M. Rooney, being at the hospital earlier than myself, had given him some relief with a hypodermic injection of morphine. I cut the sutures and allowed the feces to escape freely, which gave immediate relief.

Having failed to effect a closure of the fistule by that simple operation, I devised the following method, and with the assistance of Mr. Joseph Hollybush, a medical student, made the opera-

tion, February 7th. By catching the integument into a fold on either side of the fistule, the tops of the folds could be easily brought together over the fistule. An incision was made along the top of the folds, down to the areolar tissue, and continued entirely around the fistule; this incision was about three-quarters of an inch from the fistule. Two iron wire sutures were then passed three-quarters of an inch back from the incision, emerging through the incision, crossing the fistule and integument, and entering the incision on the opposite side, and coming out of the skin three-quarters of an inch from its point of entrance into the incision. See Fig. 3. A is the fistule, B the surrounding incision. A Bozeman shield and shot clamp being placed upon one end of the wire and tightened, and traction made on the other end, the folds would be reproduced, and the skin next the fistule, having its edge turned, in or inverted, would bring nearly an inch of fresh, raw surface in apposition all around the fistule. Fig. 4

FIG. 3.

shows a cross section after the stay sutures have been tightened. A, caliber of the bowel, with the inverted skin pointing in, in a V shape. B, skin external to the incision, brought together with a suture.

FIG. 4.

Examination of this figure will show that the feces, in passing downward, would not act as a wedge to tear open the wound, as in any other mode of closure, but coming up on both sides of the V-shaped projection, they press the raw surfaces together, contributing to their adhesion, while the shape of the projection causes it to act as a valve, to prevent the escape of the feces.

Fig. 5 represents the parts after the stay-sutures are tightened and the edges of the external skin have been united with interrupted sutures.

FIG. 5.

Union by first intention occurred throughout, except a portion of the inner end, leaving an opening the size of the end of the little finger, which gradually decreased until it was not larger than a small lead pencil, and permitted no feces, unless very fluid, and a little gas, to escape.

Discharged February 8th. The patient, when discharged, had a morbid fear that the opening would close entirely up, thinking that if it did he would die. I do not know that it has entirely healed yet, but fear he has prevented it, from

not understanding the condition of affairs. I think I would have secured union throughout from my last operation, if there had been three stay-sutures used instead of two.

Dr. Frank H. Hamilton, in his valuable work on surgery, states that about three out of five die that are operated upon for strangulated hernia, which seems like too great a per cent., and permits such statements to be made as, "Dr. Druitt has justly observed, ovariotomy need not fear to be judged by such results as these, which are far more favorable than those after the larger amputations, and after herniotomy and lithotomy in the adult." *Medical Press and Circular*, June 18th, 1879, p. 489. Personally I do not think I have the right to draw a comparison between ovariotomy and herniotomy, as I have performed ovariotomy but once, and that one successfully. In the last five years I have performed herniotomy twelve times, with three deaths; of the patients that have died one was eighty-seven, another seventy-six years old, and the other one in the last stages of consumption. Two of those that recovered were over seventy years old. Such good results I attribute to early operative interference, and in an article contributed to the Richmond and Louisville *Medical Journal*, for January 1877, entitled, "When to Operate for Strangulated Hernia," I insisted upon the safety of the patient in the great majority of cases being greater the sooner the operation, after a short taxis fails to reduce.

Bryant recommends that taxis be tried for five minutes, and failing, that herniotomy be immediately resorted to. Although this may seem like hasty practice, it is infinitely superior to long continued taxis, frequently so forcible as to cause peritonitis or reduction *en bloc*, followed by the death of the patient, leaving the operator but one consolation, that the mischief he has produced is so hidden that no one knows it, allowing him to place the responsibility of the bad result upon the Lord.

HOSPITAL REPORTS.

PENNSYLVANIA HOSPITAL. CLINIC OF DR. R. J. LEVIS. REPORTED BY J. F. SOUWERS, M.D.

At the last clinic I had under consideration the subject of simple fractures of the femur. Today I purpose making some remarks on compound, comminuted and complicated fractures, using for illustration the cadaver on the table, which had been the subject of such injury. Fractures are either simple, compound or com-

plicated. A simple fracture is merely a solution in the continuity of the bone; a compound fracture is one in which there is violence done to the soft tissues, associated with perforation of the integument. When the bone is more or less splintered or broken into fragments, we class it under the head of comminuted fracture, and under the head of complicated when the fracture has penetrated a joint, or when an important vessel or nerve is implicated. These cases nearly always owe their origin to extreme violence, and the prognosis is much less favorable than that of simple fracture, owing to the injury of surrounding structures, the greater shock to the system, and the tendency to hemorrhage, secondary inflammations, etc.

In a large proportion of these cases of compound fractures of the leg and thigh, there is not only breakage of the bone, but an oblique protrusion of the ends of the fragments, which protrusions are at times very difficult of reduction. This man was the driver of a stone truck, such as is used in the transportation of large blocks of granite and marble. While driving his foot slipped, and he was thrown under the wheels of the truck, which passed over his thigh and leg; the result of this crushing and, at the same time forward moving, weight, was, as you will perceive, a compound fracture of the femur and a compound comminuted fracture of the bones of the leg; the ends of the fracture are exposed to the atmosphere, and the soft tissues are greatly lacerated. He died shortly after admission, from shock, which is one of the great dangers we have to contend against in these cases. There was little, if any, hemorrhage. The question now is, how should these cases be treated? The first rule is to reduce the fracture as nearly as may be to the condition of a simple fracture; if you find small splinters or fragments of bone in the wound, remove them, as I did in this case, before proceeding to any other measures, first having had such foreign substances as street dirt, etc., sponged away; if there be not much laceration of the soft tissues, you bring the edges of the wound together after effecting reduction of the fracture. The question now arises, how are we to effect and maintain reduction? In many cases simple extension and counter extension will be all that is necessary, but in many cases the tonicity and irritability of the muscles acting on an oblique fracture will cause a constant re-protrusion of the ends of the bones, as was the case in this fracture under consideration. We can at times maintain reduction by tiring the muscles out and overcoming their tonicity; this is effected by making constant traction on them. In the leg low down this is difficult of accomplishment, but you may attain the object by the temporary use of the stirrup bandage; or by a gaiter applied to the ankle. The former may be applied as follows: Take a bandage and pass it once around the ankle, turn it under, then carry one end down the side of the ankle, under the sole of the foot, and up to the encircling bandage of the ankle, under which it is again turned; an extension cord can now be passed through the stirrup portion of the bandage, the weights adjusted, and the temporary dressing is complete. When the fragments are forced through

an opening too small to admit of their replacement, you can pursue either one of two plans: either enlarge the opening, if that would seem to offer a favorable way out of the difficulty, or saw off a section of the bone; frequently by manipulating the integument, by means of a spatula, a spoon handle, or a smooth stick, the fragments may be returned to their proper places. In those cases where contraction of the muscles interferes with the reduction, especially when the fracture is situated low down in the leg, tenotomy may be performed, dividing the tendo-achillis.

Another expedient, where there is constant tendency to re-displacement, is the wiring together the ends of the fractured bones. This is performed by drilling a hole through the ends of the bones by means of a bone drill, and ordinary wire is then passed through these openings, the fragments brought into position and the wire tightly twisted. In those cases in which, owing to the amount of laceration, it is impossible to

altogether reduce to the condition and treatment of simple fracture, we use what is known as the "bran dressing." This is applied as follows: the limb is placed in an ordinary fracture box; new, clean bran is then poured into the box and closely applied to the limb; on the torn tissues is placed the carbolized oil dressing, this consisting of nothing but lint saturated with carbolized oil; if desirable some carbolite of lime may be added to the bran. This bran dressing presents many advantages; primarily, it acts as a cushion, and effects a certain amount of pressure, which is, of course, desirable; it absorbs pus and other discharges, and in cases of hemorrhage, by its absorbent action and consequent swelling, and extra pressure, it tends to allay the bleeding; when soiled by discharges it may be scraped away and fresh bran substituted, without the necessity of in any way disturbing the limb till the bone has reunited. This dressing has also the important merit of keeping flies from depositing their larvæ in the wound.

EDITORIAL DEPARTMENT.

PERISCOPE.

Theory of Sea Sickness.

Dr. Henry Naylor writes to the *Lancet*, August 23d, of this affection—

The theory I propose may be called the cerebral anæmic theory. The rapid swinging of the vessel, and the body with it, irritates the eyes and vision, and this, by reflex action, produces a spasm of the cerebral capillaries; this explains the feeling of faintness and giddiness that comes on suddenly, just as the vessel gives a big swing. The sudden emptying of the cerebral vessels causes the stomach to sympathize, resulting in efforts of vomiting, whether the stomach be full or empty. These symptoms are the most distressing when the subject is in a standing or sitting position, with the eyes open. If he lies down the change of position relieves the anæmia, the faintness and giddiness pass off, and the sickness ceases. But occasionally, even the recumbent position does not give relief if the eyes are kept open. When they are shut the symptoms are not felt in the least. I have known this to be the case with several ladies who were never comfortable while at sea unless they were lying down with their eyes closed. They were able to eat meals and retain them if they laid down and closed their eyes immediately afterward. In fact, I have been obliged to keep some constantly in bed, to prevent their dying of starvation. A fact that helps to show the feasibility of the anæmic theory is, that brandy and other stimulants give considerable relief for a time, which would not be the case if the cerebral congestion had to do with sea sickness. The explanation of how sea sickness continues so persistently in some is, that the sickness weakens the heart's action, and this keeps up the cere-

bral anæmia, and that in turn again produces the sickness; so that prolonged sea sickness is due to a circuit of causes, the one producing the other—the visual irritation, cerebral anæmia, sickness, weak heart's action.

With reference to nitrite of amyl, Mr. Leeson says, if it is to do any good, it must do so at once. This is because the medicine, being an antispasmodic, relieves the spasm of the cerebral vessel, and thus the brain is refilled with blood. But if it fails, then the persistent sickness, by its effect on the contractions of the heart, prevents the brain from getting a sufficient supply of blood, and thus the brain becomes anæmic, not from a spasm of the capillaries, but from an insufficient power of the heart. It is at this stage that alcoholic stimulants, in small doses frequently repeated, give great relief.

Physiological Experiments with Ergot.

In a monograph on this subject, by Dr. Peton, of Paris, reviewed in the *Medical Times and Gazette*, the reviewer says—

The most striking results which Dr. Peton observed, and those which appear the best ascertained, and least liable to misinterpretation, are the following: He injected ergotine at the base of a rabbit's ears. In five or six minutes both ears began to get anæmic, and the pupils to dilate; this gradually increased, and lasted several hours. Its intensity and duration varied according to the dose of ergot given. Dr. Peton next divided the sympathetic in the neck of a rabbit, and dilatation of vessels and contraction of pupil on the corresponding side followed, as usual. The ergot was then injected, as in the before-mentioned experiments; its administration was followed by anæmia of the ear and dilatation of the pupil. The author

then, in another experiment, divided both the sympathetic and the great auricular, and when the vascular dilatation and contraction of pupil was at its height, injected ergot. The resulting anaemia and dilatation of pupil were as pronounced as before. To ascertain the comparative effect of injecting ergot at a greater or less distance from the part at which its action was desired, Dr. Peton, after having divided the sympathetic of a rabbit on one side, injected the drug into the buttock. Anaemia of the ear and dilatation of the pupil followed, but not to the same degree as had been noticed when the injection was made into the neighborhood of the part itself. When ergot was taken into the stomach, not only was a much larger dose required to produce an effect equivalent to that of hypodermic injection, but the result was slower and less certain. Dr. Peton concludes that the effect of ergot is not produced through the nervous system, but that it has what may be called an elective affinity for unstriped muscular fibre, acting directly upon this structure; and that subcutaneous injection is the best and most certain mode of securing its effect.

Treatment of Dysentery in Children.

Dr. Charles Bell, in the *Edinburgh Medical Journal*, September, 1879, after condemning the treatment recommended by Dr. Meigs for this disease, proceeds to say:—

The most useful treatment will be warm baths, poultices, and leeches, and small doses of calomel and James' powder, to be repeated every two hours until the fever subsides, and the bowels are gently moved, and their evacuations become more natural. If they are much tinged with blood, a few drops of the liquor ferri pernitritis, in a little sugar and water, may be given with advantage every three hours, the dose being from one drop upward, according to the age. It is only in the most extreme cases, when there is much pain, that opium should be given, and even then it should be in very small doses. If counter-irritants are to be had recourse to, which is doubtful, the most suitable are mustard poultices, or the spirit of camphor sprinkled on spongiopiline, and closely applied over the stomach. The diet should be light and nourishing as soon as the little patient shows any inclination for food. If stimulants are required, the best is a drop or two of brandy in a teaspoonful of milk, or a little port wine diluted with water.

Diseases from Insufficient Food.

Dr. Cornish, of India, observes, in a recent report to the English Government—

There are two varieties of starvation recognized by all physiologists and practical physicians. The "acute" form, in which all food is withheld, as in people shipwrecked at sea, or shut up in mines; and the "chronic" form, in which the daily nutriment necessary to the wants of the body is defective in quantity or quality. The "acute" form of starvation slays its units—the "chronic" form its tens of thousands. It is the latter form that we have to take notice of in

seasons of dearth and food scarcity; but of late years a fashion has sprung up, of referring mortality that unquestionably ought to be shown under the head of "privation" or "starvation," as due to disease, and in this way attention is diverted from the real fount and origin of excessive death rates.

When the food supplies of a people are insufficient to sustain life, and all the tissues of the body have wasted, the mortality occurs mainly as a result of the feeble powers of assimilating food. After the victims of chronic starvation get into jail there is no lack of suitable and nourishing food; and if the issue of nutriment to persons in an advanced stage of chronic starvation can save life, there should be no famine mortality in jails. But experience, whether in jails or famine relief camps, tells precisely the same story, viz.: that there is a stage in the downward progress of those whose food has been habitually insufficient, from which recovery is impossible. When the powers of digestion and assimilation are impaired, diarrhoea, dysentery and dropsies set in, the symptoms of which are unrelievable by food or medicine, and death follows. The diseases resulting directly from privation have killed, in jails, more than three times the number that were cut off by cholera or other epidemic pestilence.

Treatment of Pneumonia.

Dr. S. Benton, of London, writes to the *Lancet*, September 6th—

Acute sthenic pneumonia is ushered in with one single rigor, and runs a definite course of seven days; if you can keep your patient alive until the eighth day, the prognosis is favorable. Several shivering fits are not an unusual precursor in catarrhal or broncho-pneumonia, in pneumopleuritis, and pneumonia with other complications; also these forms of the disease run a longer and different course to simple acute pneumonia.

A lowering treatment does not suit pneumonia. I have had lately under my care a large number of acute cases of pneumonia of both lungs, one of my patients being over eighty years of age. The treatment adopted, and which has proved successful, is to order them a mixture containing liquor ammoniae acetatis and vinum ipecac. for the first two days, with a slop nourishing diet; the local measures being turpentine stups or jacket linseed-meal poultices during this the period of engorgement.

On the third day order three ounces of brandy; on the fourth, fifth, and sixth days steadily increase the stimulant, giving it in milk and egg; also order a draught containing two grains of quinine, to be taken every four hours. Envelop the chest in cotton-wool, which is both beneficial and comforting to the patient. The quantity of stimulant ordered must be regulated in accordance with the previous habits of your patient; begin with small quantities, increasing the dose steadily up to the seventh day. Be careful strictly to watch over the nurse; everything depends upon her. If she neglects his nourishment during the nights of the sixth and seventh days of the disease, the patient is bound to slip through your fingers, especially if previously addicted to intemperance.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—A paper of considerable local interest, entitled, "The Sanitary Problems of Chicago, Past and Present," appears in pamphlet form. Its author is Dr. J. H. Rauch, of Chicago.

—A historical sketch of the physicians of Dover, N. H., read before the New Hampshire Medical Society, by Dr. John R. Ham, reviews the profession in that town from 1631 to 1878. It is full of facts.

—A reprint of an article by Dr. Douglas Graham, of Boston, contains a historical sketch of massage, tracing it from the *anatrispis* of Father Hippocrates down to the *lomi lomi* of the Sandwich Islanders.

—A valuable paper, embodying much original observation, on the staining and double staining of vegetable tissues, by Dr. J. T. Rothrock, appears in the *Botanical Gazette*, September, 1879.

—In an article on "Climato-therapy of Phthisis Pulmonalis," by Dr. John Brownrigg, of Columbus, Miss. (reprint from the *State Trans.*), the author compares Aiken, S. C., and various spots in Florida, with some celebrated resorts in the old world. As usual, the climatic conditions are stated very incompletely, and the author at the close of his paper evidently remains uncertain as to the relative merits of the localities he discusses.

—The Annual Report of the Board of Health of the City of Pittsburgh is a well prepared document of 86 pages, with maps and colored diagrams. A feature of particular interest is a report on the outbreak of diphtheria in the city, from August 1877 to August 1879, by Dr. W. Snively. The total deaths from that disease alone in those two years were very nearly one thousand (984)! Dr. Snively considers it unquestionable that imperfect drainage and the poisonous effects of sewer gas were the main factors in the separate outbreaks he chronicles.

—The first number of the *Real Encyclopädie der Gesammten Heilkunde*, edited by Dr. Albert Eulenberg, and published by Urban & Schwarzenberg, Vienna, has reached us. The subjects are arranged in alphabetical order, and in this number extend from *Aachen* to *Accommodation*. The editor is assisted by a long list of collaborators, including many of the most distinguished names in German medicine. The work is handsomely illustrated with numerous

wood cuts, and will represent the most scientific phases of modern medicine. It will be completed in about ten volumes.

—Dr. Martinez del Rio, of the City of Mexico, is an experienced obstetrician, and in a half dozen papers which he has written the reader in that department will find much to interest him. One is of a remarkable case of vaginal atresia following gangrenous inflammation at the first labor. In spite of the impossibility of intromission the patient conceived again, and section of the vagina was performed at the second labor. It was successful, and resulted in a cure of the atresia. Other of his subjects are *La raspa de la cavidad uterina, extirpacion del cuello uterino por medio del cauterio actual*, and *Higiene puerperal*.

BOOK NOTICES.

A Clinical Treatise on the Diseases of the Nervous System. By M. Rosenthal, vol. II. Translated by L. Putzel, M.D. New York, Wm. Wood & Co.

On a previous occasion we have noticed the first volume of Rosenthal's work. The present one embraces anterior scleroses, hysteria and its concomitant nervous disorders, spasmodic cerebral and spinal neuroses, toxic neuroses, those associated with tremor and those connected with the sexual system, diseases of the cranial and spinal nerves, and vaso-motor and trophic neuroses. The translation is well made, and except that the advances in neurology which have been made in the last few years do not appear in the text with the prominence we have a right to expect, the work is one which the neurologist will scan with interest.

Transactions of the Southern Illinois Medical Association. Vol. I. 1879. pp. 71.

This Association was formed January, 1875, and is now stated to be "one of the largest and most harmonious bodies of medical men west of the Alleghany mountains." This first vol. of its transactions contains the minutes, an address by the retiring President, Dr. D. S. Booth, on the contagiousness of consumption, and articles on chloral, by Dr. D. H. McCord; epilepsy, by Dr. H. R. Guthrie; insanity, by Dr. J. K. Rainey; antiseptic surgery, by Dr. H. D. Hammack; and cases reported by Dr. J. G. Arnett, H. V. Ferrall, J. T. Binkley and others. The volume presents a very creditable appearance, and its contents well merit presentation in permanent form.

THE
Medical and Surgical Reporter,
 A WEEKLY JOURNAL,
 Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year,	\$5.00
Half-Yearly Compendium of Med. Science,	2.50
Reporter and Compendium,	7.00
Physician's Daily Pocket Record,	1.50
Reporter and Pocket Record,	6.25
Reporter, Comp. and Pocket Record,	8.25

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M.D.,
 115 South Seventh Street,
 PHILADELPHIA, PA.

LEPROSY IN AMERICA, ITS DANGERS AND PREVENTION.

The introduction and possible spread of leprosy in America has excited the attention of the profession to some extent during the past year. There are several foci on this continent whence it may be propagated and where it already exists. Beginning at the north, there is no doubt that true leprosy has existed for generations among certain villages on the coast of New Brunswick; within the last year thirteen cases have been reported from Louisiana, by Dr. L. F. SALOMON; it has been introduced into California by Mongol emigrants; and in the island of Trinidad, in a population of 120,000, there were, in 1878, 860 lepers. Dr. ROHE, in the Maryland *Medical Journal*, July 1878, estimates that at that time fifty cases of true leprosy had been observed and recorded in the United States.

The horror which this disease inspires arises from several causes: its loathsome aspect, its incurability, its foul odor, its alleged contagiousness. Its exact pathology is still undetermined, and even the apparently easily ascertainable

fact of its communicability remains a debated question. Dr. ROHE is of the opinion that it is not a specific, pathologically definite disease, depending upon a known cause, but that it consists in a profound disturbance of the economy, analogous to, or more properly homologous with, cancer, beginning perhaps in the nervous system, occurring in all parts of the earth, and affecting individuals of all classes; the origin and nature of which remain for the present unsolved problems.

Dr. JOHN C. BERRY, who spent five years as medical missionary in Japan, concluded, from his observation of the disease as it exists there, that it is limited in its power, and cannot propagate itself beyond five generations, if due attention is given to the care of its victims; and further, that under certain conditions of soil and climate, combined with whatever tends to depress the vital powers, either morally or physically, it is endemic; and these latter influences play an important part in the early production of the disease in those who inherit a tendency to it. While doubting its contagious character, he believes that the evidence is ample, that it may be propagated, like syphilis, by inoculation.

The latest study of this important question of its communicability, is by Dr. W. MUNN, whose article appeared in some recent numbers of the Edinburgh *Medical Journal*. He believes there are sufficient proofs of its semi-contagious character, and states them briefly in the following propositions, which he supports by abundant evidence:—

“ 1. It has always spread from race to race, wherever an infected race was brought into contact, under favorable conditions, with a non-infected one.

“ 2. It has been and is most prevalent among those races and nations among whom the freest communication with lepers is allowed by public opinion and law.

“ 3. The so-called proofs of heredity commonly advanced being utterly defective, most, if not all, of the cases accepted by some authors as hereditary are best accounted for by communicability.

“ 4. The cases on record of probably communicated leprosy strongly support this view, and taken with the other proofs, show that the disease is undoubtedly communicable, probably only by long continual contact or inoculation, but possibly through drinking water.”

A work has been published this year, by **BALLIÈRE & SOH**, Paris, by a missionary to Trinidad, who presses very urgently the view that the disease is really contagious, in the full meaning of the term. He recognizes that it is a widespread opinion of medical observers that such is not the case, but he shows that the disease does extend, and always has extended, in a community, just in proportion as the leprous have been allowed free intercourse with the uncontaminated around them. In regard to the element of contagion, the active agent in communicating the disease, our author believes that infection takes place mainly through the agency of the respiratory passages, and asserts that the well pronounced leper exhales an odor which marks his presence, and which not infrequently leads to his discovery, and often humiliation, as in traveling in public conveyances. He says that frequently priests, in the confessional, in administering extreme unction, etc., are profoundly affected by the effluvia coming from leper patients.

The prevalence of this disease in India, where 75,000 lepers are estimated to be living, in China and Japan, the intercourse with which countries is growing yearly, in the Sandwich Islands, where a severe form is common, and in the localities mentioned in our own country, give to the study of its nature a new and appalling interest. It has been stated that it is essentially a disease of insufficient nutrition, and that a well fed race could not suffer much from it; but this is more than doubtful, and the experience of modern times coincides with that of that ancient lawgiver, "learned in all the wisdom of the Egyptians," who ruled that absolute isolation of the affected is the only safeguard to a community when this dreaded malady once shows itself, and who in the Pentateuch has left us a monument full of information and sound advice on this, as on so many other subjects which most intimately concern the destiny of man. It may be long before we in the United States shall have occasion to resort to this terrible measure; but it may be near; and in any case we should be clearly aware of our duty in the premises.

NOTES AND COMMENTS.

Therapeutical Notes.

INFLAMMATION OF THE EYES.

R.	Morph. sulph.,	gr. $\frac{1}{3}$ j.	
	Zinci sulph.,	gr. $\frac{1}{3}$ j.	
	Aq. dest.,	$\frac{3}{4}$ j.	M.

Sig.—Apply two drops directly to the eye every three hours.

Of the above Dr. J. E. Horn says, in the *Cincinnati Lancet and Clinic*—

I have used this prescription a number of times in acute and subacute inflammations of the eye, and always with good success. I have used many others, but not with so great a degree of success. In fact, I have never used a remedy that gave me so great satisfaction, unless it be quinine in affection of a malarial origin.

ERGOTINE IN PROLAPSUS ANI.

Dr. Vidal recommends injection of a solution of ergotine for this purpose. The *Paris Medical* mentions three cases in which this method was employed. In one of these the prolapse, which had existed for eight years, yielded to the treatment in three months. In two other instances the cure was much more rapid. A woman under observation at the St. Louis has been almost entirely cured by three injections. The contractions produced by the introduction of ergotine extend, as a rule, to the bladder, and give rise to spasm and dysuria.

CHLORATE OF POTASH IN EPITHELIOMA.

A writer in the *Lancet* says: In epithelioma a *saturated* solution of chlorate of potash forms an excellent application. This was first recommended by Ledeschi, in 1845, and has since been experimented with by Bergeron, Le Blanc, Blon-deau, Férol and others. Miton and Cooke published the first two cases of cure by this means in man; there is, therefore, nothing new in the treatment, but I wish to insist upon the fact that it is serviceable. A few weeks since Professor Broca showed me a patient with an epithelial growth surrounding and involving both lips, which had been modified most satisfactorily by saturated chlorate of potash solution dressings.

PRESCRIPTION FOR SPERMATORRHœA.

The New York correspondent of the *Chicago Medical Journal and Examiner* sends to that journal the following prescription for spermatorrhœa:—

R.	Tr. humuli	40	c.c.
	Tr. camph.	30	c.c.
	Tr. opii.	10	c.c.
	Syr. tolu, q. s. ad.	100	c.c. M.

Sig.—4. c.c. at night.

Of this he says: It was given me by Dr. W. C. W. Glazier, Assistant Surgeon Marine Hospital Service, and has had much endorsement, some of it very strong and rather amusing.

KINATE OF QUININE, HYPODERMICALLY.

For hypodermic use, Mr. Collier, of Guy's Hospital, recommends—

R. Quiniae kinatis, 3 vj.
Aqua destil., 3 ij. M.

Heat until the salt dissolves, then fill up with water to f. 3 j.

This solution is perfectly neutral, but requires attention, that the kinate does not become precipitated. It is soluble, and by heating will readily redissolve.

Quinine in Delirium Tremens.

The value of very full doses of quinine in those cases of delirium tremens where the vigilance continues in spite of large doses of anodynes, is well illustrated in a case reported by Dr. E. F. Waller to the Louisville *Medical News*. The patient had taken twenty-four grains of morphia, besides large quantities of chloral and bromide of potash, but the vigilance and delirium continued. It was at this critical stage of the trouble that Dr. Waller recalled to memory the recent reports of the sedative effects in typhoid fever of large doses of the sulphate of quinia. He accordingly gave the patient forty grains, with capsicum added, and left him in my care. Soon his manner began to change, and at one o'clock (three hours after the first dose was given) he repeated the quinia, and in less than fifty minutes the patient was sleeping. He slept six and one-half hours, waked, resumed his sleep the next afternoon, slept well the following night, and regained his former mental balance.

Digitalis in Typhoid Fever.

Some praise of this treatment is awarded by Dr. W. T. Chandler, in the *American Medical Biweekly*, August 30th. He observes—

"There is a remedial agent that is sometimes of signal service in the treatment of typhoid fever; I allude to the *digitalis purpura*, the physiological effects of which have been rendered famous by the original experiments of Fothergill. The action of digitalis is to decrease the frequency of the heart beat at the same time that it augments the power of the cardiac systole. It is only indicated when the heart's action is feeble and frequent. It may be given either in infusion or fluid extract; the dose to be regulated by the effects in individual cases, to be determined

alone by its influence over cardiac action. The late Dr. E. T. Easley, in an essay upon the use of "Digitalis in the weak heart of continued fever," speaks advisedly as to its efficacy in the later stages of typhoid fever, in controlling irregular and enfeebled action of the heart."

The Development of Ergot.

At the last meeting of the British Pharmaceutical Conference, Mr. W. W. Stoddard detailed some novel observations on ergot in the rye grass, *Lolium pratense*. It was first brought to notice by the fungus affecting ewes and lambs which fed upon it.

The deductions from this investigation were—

1. That for medical purposes and for pharmaceutical preparations in the greatest activity ergot ought to be collected in the months of August and September.
2. That ergot attains its greatest intensity at the close of the "vegetable" growth of the fungus.
3. That the medicinal properties of the ergot lessen and begin to disappear as soon as the fruitifying period commences.
4. That the growth of the fungus on the *Lolium* appears to be identical, both microscopically and chemically, with that of the rye itself.

Analysis of Chlorine.

Scheele, the discoverer of chlorine, supposed it was a compound body, and only when all attempts failed to decompose it, was it placed among the elementary bodies. Recently Prof. Victor Meyer, of Zurich, has succeeded in separating it into other constituents. He uses an extremely high temperature, 1570° Cent. and the manipulations necessary to testing under these conditions are as yet so imperfect that he has not been able to say whether the resultant is oxygen or some other element. He submitted to the same temperature oxygen, sulphur and quicksilver, but they underwent no alteration. Iodine behaved like chlorine, showing itself to be a compound body.

Nervous Symptoms of Uterine Disease.

An interesting illustration of the close etiological relationship which sometimes—more frequently, perhaps, than is usually remembered—exists between uterine and nervous disease, was lately brought before the Chicago Medical Society. Dr. Bartlett related a case of Dr. Mary Thompson's. A woman suffering from cervical

laceration became the subject of epileptic seizures, and finally had in one day six or eight of these attacks. The Doctor operated in the usual way, and the patient had now had but one fit in three months.

Simaruba Bean as an Antiperiodic.

A French physician, Dr. Coignard, who practiced in Costa Rica, reports that the natives use the bean of the *simaruba ferruginea* as an antiperiodic, cutting the bean into small pieces, the size of a pea, which the patient swallows between the attacks (*Allg. Med. Cent. Zeitung*, August 27th).

The bark of the simaruba, which is officinal in the United States Dispensatory, is a simple bitter tonic, and quassia, which is derived from another tree of the same species, also possesses no specific properties.

CORRESPONDENCE.

Case of Dropsy.

ED. MED. AND SURG. REPORTER:—

I have a case on hand which I wish to report in your journal, for two reasons: first, the repeated aspirations or "tappings;" and secondly, the immense quantity of water drawn by the above means within specified time, the patient during the principal part of the time able to sit up, walk about the house; and also occasionally visit and attend church. My friend, Dr. Garretson, of Macomb, used the trocar and canula at seven successive sittings, averaging once in three weeks, at each operation taking from 4 to 4½ gallons. The lady then came to me for assistance, and during the year I "tapped" her fifteen times, averaging 4½ to 5 gallons. The year referred to expired January 31st, 1879. At that time the wound made by the trocar remained *pervious*; and since that time the patient has been her own surgeon, and once in eight days' time draws regularly about 2 gallons of water, introducing the canula through the wound remaining open.

We have kept a correct account of water drawn since commencement, making two hundred and nine (209) gallons, having been operated upon twenty-two different times, and the remaining portion drawn by herself. We make no addition for the spontaneous escape of water from the wound during the twenty-four hours following an operation, an amount sufficient to saturate a large comfort during one night, supposed by the patient to amount to 1½ to 2 gallons succeeding each sitting.

The patient's age is about 52; she has been married 15 years; never borne children. The origin of her dropsy is *renal*. The operations were begun March or April, 1878, and the last one, January 31st, 1879.

She is still living; able to sit and walk around the yard and house; but the anasarca, which

previous to the present fall season has only shown in her feet and legs, is now becoming general. Have *tried* many remedies, but none appeared to have a beneficial effect.

Any suggestion by your readers will be thankfully received.

J. W. DONNALLY, M.D.

Doddsville, Ill., Oct. 9th, 1879.

Three Cases of Diabetes.

ED. MED. AND SURG. REPORTER:—

I was called, September 12th, 1876, to P. P., aged eighty-two, of very intemperate habits, who was suffering from diabetes insipidus. He was very much emaciated, appetite ravenous and with a constant thirst. He passed from sixteen to twenty pints of water in twenty-four hours. He had been treated by several physicians, but had received no benefit. I put him on the following, which entirely cured him in fourteen days, and with tonic bitters he fully regained his former health:—

R.	Tinct. ferri sesquichlor.,	3 ij
	Tinct. opii,	3 iss
	Quinia sulph.,	gr. x
	Aqua puræ,	3 vj. M.

SIG.—One ounce three times a day.

CASE 2.—I was called, September 21st, 1877, to see H. J. B., aged fifty-five; blacksmith; also of intemperate habits. He was suffering at that time with typho-malarial fever, which lasted twenty-two days, and resulted in a tedious recovery.

After he had apparently recovered, and resumed his work, he was soon forced to discontinue, from having so many calls to urinate. Some one told him he had diabetes, that it was incurable, and the old man concluded to have nothing done. He was passing from twenty-two to twenty-four pints of water a day and night. His friends finally prevailed upon him to try medical treatment, and I was sent for. I put him on the above ferruginous mixture, and the improvement was such that he was able to be on the streets in fourteen days. He complained of the bitter in the medicine, and I put him on the tinct. ferri chloride, in one-half drachm doses, and he was entirely restored in two weeks more, and is now a hale old man, and working at his trade.

CASE 3.—D. G., aged forty-five; tinner; habits intemperate; called on me in June, 1878. Complained of an aching pain in the region of the left kidney, and said he would have to quit his work if he could not be cured, as he had to lose so much time to make water. I tested his urine, and found it to contain from one to two and a quarter ounces of saccharine matter. I ordered the same treatment as in Case 1, and he was so much relieved that he continued his work. The quantity of water has remained normal since the first two weeks of abatement, and as he seems in good health, I have not examined the urine since. To-day I inquired of him if he had remained well, and he says his urine is normal, except when he takes cold, then it increases in quantity, but a few doses of the medicine fully restores him to his normal standard of health.

Marion, Ill.

W. H. BENTLY, M.D.

On Cholera Infantum.

ED. MED. AND SURG. REPORTER:—

At the commencement of my professional career, twelve years ago, I lost in rapid succession several cases of cholera infantum treated according to the methods indicated in the standard medical works of that time. Soon after I saw, in some medical work published in New York city, the histories of ten or twelve cases treated successfully with small doses of bromide of potassium. I immediately began its use, and in conjunction with subnitrate of bismuth and rigid dietary regulations nearly every case since coming under my care has terminated in recovery. The subnitrate is given every three hours, in doses of five to fifteen grains, and the following formula of the bromide is used:—

R. Potassii bromidi, gr. xvij
Aqua destillatae, unciam,

Sig.—Coch. min. quaque hora sinnen deun.

If the child has not been weaned, the diet of the mother is carefully regulated. She is restricted to toasted bread, a little milk or egg, with tea and coffee, if the latter are habitual.

The flour of which the bread is made is inspected, that it may be known to be good. The child is allowed to nurse only once in three hours, and the amount is diminished. Idiosyncrasies, if any, of the child are detected. Thus in one case a mouthful of chicken taken by the mother, in another two teaspoonfuls of milk from a certain cow, used in tea, acted as a cathartic upon their respective infants. The mother is directed to obtain at least eight hours' sleep daily, and to effect this the child during that time is committed to the care of a nurse. Of course, the mother is roused to nourish the child, but this being performed she is again permitted to sleep. If the infant has been weaned it is confined to cow's milk diluted with rice-water, varying the proportions according to circumstances.

The milk, if possible, is given while it yet contains the animal heat, and, of course, is milked from the cow as required. The cow now occupying the office of mother must be in good health, should be in a stable perfectly clean and ventilated, furnished with abundance of food and pure water, and in no way irritated. Rigid adherence to the above plan, modified more or less by circumstances, has, as above stated, been uniformly successful for the past ten years, and being so long continued cannot be attributed to good fortune, neither to climate, as it has been equally successful in New England, Virginia and Kansas. The disease I understand to be cholera infantum is described by Austin Flint as follows: "A child is seized with vomiting and purging, the latter usually occurring first; the acts of vomiting and purging are violent and frequently repeated; after the contents of the stomach and bowels are expelled the evacuations consist of secreted or transuded liquid, in more or less abundance. * * * If the course be unfavorable the vomiting and purging continue; the child is tormented with thirst, but everything is rejected from the stomach; great prostration ensues, collapse follows, and death takes place in one, two or three days. In some cases the

attack eventuates in a chronic affection, accompanied by diarrhoea and occasional vomiting."

The etiology of the disease I believe to be improper food prior to dentition, with heat as the lesser factor. To feed an infant solid food before it has teeth with which to masticate is a violation of a law of nature, and will be surely punished, and if the penalty fell upon the parents only it would be well. To test this matter, let any number of infants be confined strictly to the breast, and the diet of the mothers carefully regulated. Let an equal number be reared in the ordinary way, viz., nursed some, fed, now bread, now pickles, with an occasional piece of salt pork, etc. I should expect the cases of cholera infantum to all occur in the latter class. Three children of my own have passed from the period of birth until after dentition with no other nourishment than breast milk, the eruption of the teeth causing no more disturbance than the growth of the finger nails, and at no time was there a symptom of cholera infantum. A portion of the infancy of one was during a Kansas drought, the temperature being most of the time at about 110°. An experiment of this kind, to be of value, should undoubtedly be of much greater extent. It is difficult, however, to find mothers who will not feed more or less.

W. T. DONNELL, M.D.
Stockton, Rooks Co., Kansas.

Effects of Cold Enemas.

ED. MED. AND SURG. REPORTER:—

I was very much interested in reading the article headed "The Anti-febrile Effects of Cold Enemas," in a recent number of the MEDICAL AND SURGICAL REPORTER. I have been using cold water clysters pretty extensively, in some forms of disease, the past year, with excellent results, and perhaps my limited experience and observation may benefit others.

In a country practice we cannot take accurate observations as readily as they can in hospitals, still we can see the benefits and results just as well, though not so accurately.

Last July I had a severe case of remittent fever, with bilious diarrhoea; I prescribed the usual treatment in such cases, but ordered a cold water clyster, about six ounces, after each discharge, or every two or three hours.

On my next visit the patient informed me the cold clyster arrested the diarrhoea, but he had the clyster continued; he said it had such a nice, cooling effect, and kept him from drinking so much water.

My next case was diarrhoea, in a patient who had typhoid fever. In this case I prescribed four ounces cold water, sulph. zinc, gr. five, tr. opii. 3 ss, to be used every four to six hours. This injection not only controlled the diarrhoea, but the opium had a better effect upon the general system than if taken by the mouth.

I would further say that, as a general rule, any medicine per enema has a speedier effect upon the system than when given by the mouth, but the rule is to give just double the quantity.

During last July and August eight or ten cases of dysentery came under my treatment, mostly

all adults, and nearly all were severe cases. Three of the cases were taken rather suddenly, and very severe, passing blood in the discharges freely, and each one informed me on my first visit they could not live unless relieved. In addition to the usual treatment in such cases, I ordered six ounces of cold water clyster after each discharge. But every six or eight hours I would add hydrate of chloral, half a drachm to the clyster, to subdue the pain and tenesmus, which would give the patient a few hours' rest and sleep. Sometimes I would alternate with fluid extract of hyoscyamus, half a drachm.

I do not like opium in any form in dysentery, as it has a tendency to arrest the secretions, while the above will not, and yet give the desired rest. In some cases, if I wanted to give immediate relief of pain and tenesmus. I would use hypodermic injection of cold water in the arm, which would invariably give immediate and prompt relief.

In all those cases I would use the cold clyster throughout the disease until cured, and some of the patients would inform me that the cold water thus used was what cured them.

From my observation and experience I deduce the following facts:—

1. Cold water clyster assists to cure.
2. It is cooling and refreshing to the patient.
3. Where there is much febrile excitement it lowers the temperature.
4. It also acts as a sedative to the circulation of the blood and allays thirst.
5. It also acts as a tonic and stimulant to the rectum and colon.

In conclusion, I would not willingly undertake a severe case of dysentery or diarrhea in typhoid fever without the use of cold water clysters. A fair trial will demonstrate its good effects.

JOHN A. HENNING, M.D.

Red Key, Jay Co., Ind., Sept. 16th, 1879.

NEWS AND MISCELLANY.

Statistics of Age.

From some statistics collected in a Berlin paper, as to the duration of life, and especially as regards the proportion of the population which reaches an extreme old age, it appears that, for its population, Greece possesses the greatest number of very old people (ninety years and upward), albeit it is one of those countries where, on the whole, old people (sixty years and upward) are relatively few. France takes the lead with respect to old people generally, but it has the small proportion 0.04 of the very old. Germany and Spain show the smallest number (0.03 and 0.02) of the very old people. Austria-Hungary is something better. There are no statistical data of sufficient accuracy for the Russian Empire, but M. Leroy-Beaulieu is of opinion that the number of persons in Russia who are sixty years old and upward is about forty-five in every thousand. Omitting Russia, Turkey, and some other small States, there are about 18,000,000 persons in Europe of the age of sixty and upward.

Personal.

—Dr. Rosa Welt, a young lady of Vienna, has been appointed assistant to the chair of Ophthalmology in Bern.

—Dr. Seth Williams, of Portland, Maine, died recently, of heart disease. He was a young and promising member of the profession.

—Dr. James C. Copland, author of the abridged edition of Copland's *Medical Dictionary*, died recently. He was a literary man of extensive erudition.

—The death of Mr. Pye Henry Chavasse is announced. He was born in 1810, and spent his professional life in Birmingham. His name is associated with various popular medical works, dealing with maternal cares and duties, numerous editions of which have been published in England and this country, and whose usefulness is furthermore exemplified by their translation into nearly every European language and also into several of the languages of Asia. For some time the exact nature of the disease under which he labored was obscure, but the symptoms pointed toward cerebro-spinal sclerosis, and a post-mortem examination revealed the existence of that lesion.

The Cholera in Japan.

Within the last two years there have occurred over 100,000 cases of cholera in Japan, with a mortality of about 50 per cent. Dr. D. B. Simons, of Yokohama, writes of the epidemic—

“The type of the disease is rather peculiar, so that some foreign physicians denied for some time that it was cholera. Vomiting and rice-water evacuations were not seen in more than half the cases, if in so many; the stools were often yellow, or green and slimy. I have seen a large number of cases, but most of them have passed into the stage of collapse. The diarrhoea in the fatal cases is not often severe, but suppression of urine comes on early, followed by death in from eight to twenty-four hours. I have used jaborandi and pilocarpin in many cases, and have brought on the secretion of urine frequently when the cases were not too far advanced. The reaction, when produced by these drugs, seemed less likely to be followed by secondary fever than when stimulants were used.”

The Yellow Fever.

The continued mild weather in October was favorable to the persistence of the fever. From six to twelve new cases daily have been reported from Memphis, with a high mortality. There is serious talk of abandoning the city and choosing another site five miles distant. A number of cases have occurred at Hopefield, opposite Memphis, and at Centerville, La., up to the middle of the month there had been reported sixteen cases, with six deaths.

—Ten persons died in a small village near Breslau, in July, from eating poisonous mushrooms.

Items.

—A cremation society has been organized at Rome.

—The German physicians are complaining, like ourselves, of the abuse of clinics and dispensaries by well-to-do people. A Berlin medical paper says it is no uncommon thing to see patients well dressed, with gold chains and watches, among the applicants for gratuitous medical attention at these charities.

—A Doctor at Hot Springs, Ark., who insisted on employing drummers to get him patients, contrary to an act now in force there, has set forth his woes in a petition to the Circuit Court there. The richest part of the petition reads as follows:—

“That this course of the defendant and its officers is designed to paralyze, and will paralyze, if continued, all enterprise and competition in the practice of medicine.”

—Berlin papers report two curious cases operated on recently at Langenbeck's clinic. One was the removal of a phosphatic calculus which almost filled the bladder and weighed nearly 20 oz. (600 grams). The other, still more singular, was the removal of a third ear, which grew from the cheek of a boy just in front of one of his proper ones. It was well formed, but was, of course, unconnected with any auditory apparatus.

—The Boston *Medical and Surgical Journal*, October 9th, says: “We regret to be obliged to announce that at a meeting of the councillors, held on October 1st, it was voted to admit women to the Massachusetts Medical Society. The report of the committee to whom was intrusted the investigation of this question was unfavorable to their admission as members, but a minority report was offered and substituted for it.” We doubt if the regret will be generally shared by the profession.

OBITUARY NOTICES.

Dr. F. J. Le Moyne

Died at Washington, Pa., in his 82d year, last week, and in compliance with his request and directions in his will, his body was consumed in the crematory furnace he erected several years ago. He was the first to introduce this method of disposing of corpses in the United States, and his own was the third cremated in this country. Dr. Le Moyne was of French birth, and of strong sympathies with advanced thought. Previous to the war he was a warm abolitionist and an earnest member of the Presbyterian church, but when many members of that faith declared that the Bible sanctioned slavery, Dr. Le Moyne said if that was the case their religion was false, and withdrew from the church. Later in life he became greatly interested in the doctrines of the Theosophists. His fortune is estimated at about \$300,000, and he provides in his will that all bequests are void unless the heirs assent to the cremation of his body. This was punctually carried out on October 16th, the time required to incinerate the remains being six hours. The brain weighed only 43 ounces, about six and a half

less than the average. Two of his children are said to have withheld their assent to the rite, one of them a physician, who had already incurred his father's displeasure by declining to cremate the body of his child. The funeral services were conducted by the Rev. Dr. Hays, President of Washington and Jefferson College.

—Dr. Eugene Peugnet, of Fordham, N. Y., was struck by a locomotive, on the New York and Harlem railroad, last week, at West Mount Vernon, and had both his feet cut off. Both legs had to be amputated below the knees. He died four hours after the operation had been performed.

—Dr. J. S. Garretson, an old resident of Bridgeton, was found dead in his bed, at his boarding house, in that city, on October 15th. He was 78 years of age, and the cause of his death was general debility.

—Dr. William H. Wilbur, a leading physician of Westerly, R. I., died suddenly, of heart disease, last week. He was Surgeon in the late war, in the First Rhode Island Cavalry.

QUERIES AND REPLIES.

Dr. R. F. C., of Texas.—For the treatment of small subcutaneous nevi, tattooing the surface with croton oil has been recommended by Dr. De Smet, of Brussels. The details of his process are given in Napheys' *Surgical Therapeutics*, page 253.

Dr. L. B. T., of O.—If you address Dr. Douglas Graham, Boston, Mass., he will give you full information on the treatment of *massage*.

Dr. S. K., of Miss.—Yes; if you will send us botanical specimens of the plant we will have it identified for you. We are always glad to aid researches into the indigenous medical botany of our country, and will cheerfully and without cost have any plants alleged to possess medical virtues correctly identified.

Signa.—*Pilocarpus* has been used with some success in albuminuria; but in that attending pregnancy it is hazardous, from its ecbolic properties.

Purchaser.—Your letter was referred to the proprietor.

MARRIAGES.

HILDENBRAND—BACHMANN.—On Tuesday, Oct. 7th, 1879, at the residence of the bride's parents, 1326 North Sixth street, by Rev. A. Richler. Dr. Louis Wm. Hildenbrand and Miss Mary E. Bachmann, all of this city.

TAYLOR—DRAYTON.—In Philadelphia, at St. Stephen's Church, on Wednesday, October 15th, by the Rev. John K. Louis, U.S.N., John Madison Taylor, M.D., and Emily, daughter of the late Henry E. Drayton.

DEATHS.

SABINE.—In New York City, suddenly, on Saturday, October 4th, Julia Hannah, wife of Dr. G. A. Sabine.

SILL.—On October 1st, 1878, Dr. Andrew Sill, of Livenia, N. Y., aged 75 years.

TIBBALS.—In Cincinnati, Ohio, on Monday evening, September 29th, Dr. William F. Tibbals, aged 36 years.